

FIG.1

(a) DATA FORMAT

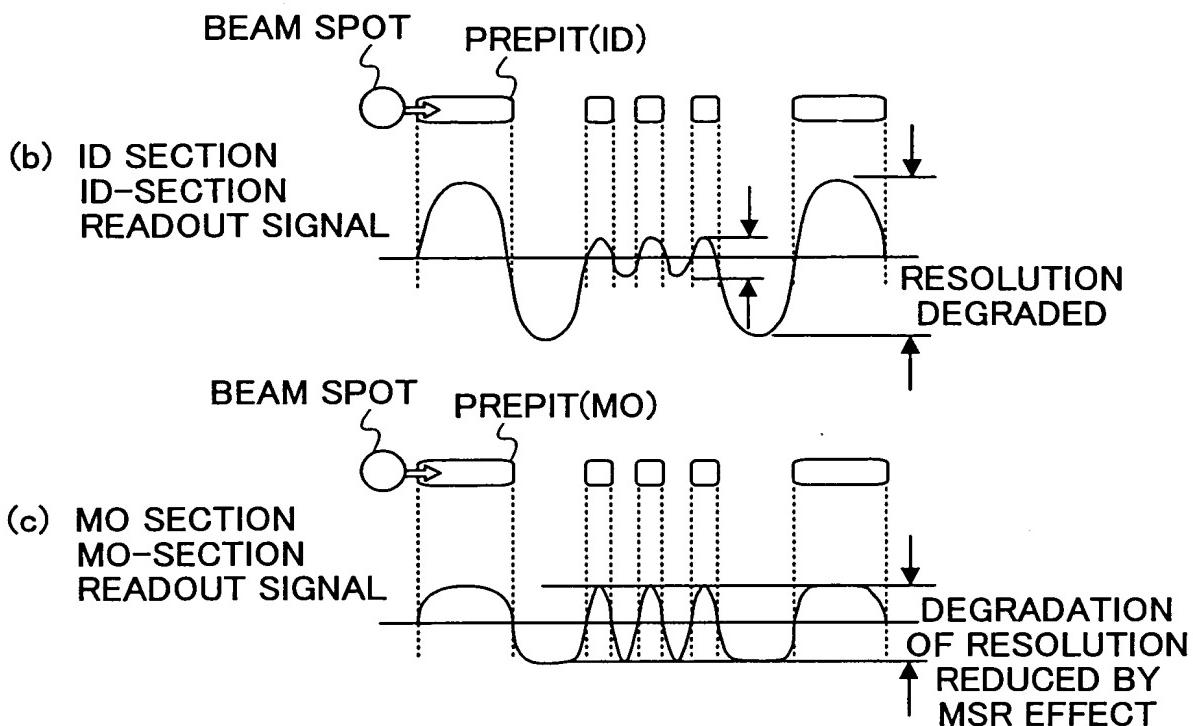
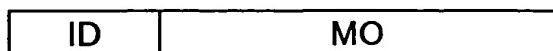


FIG.2

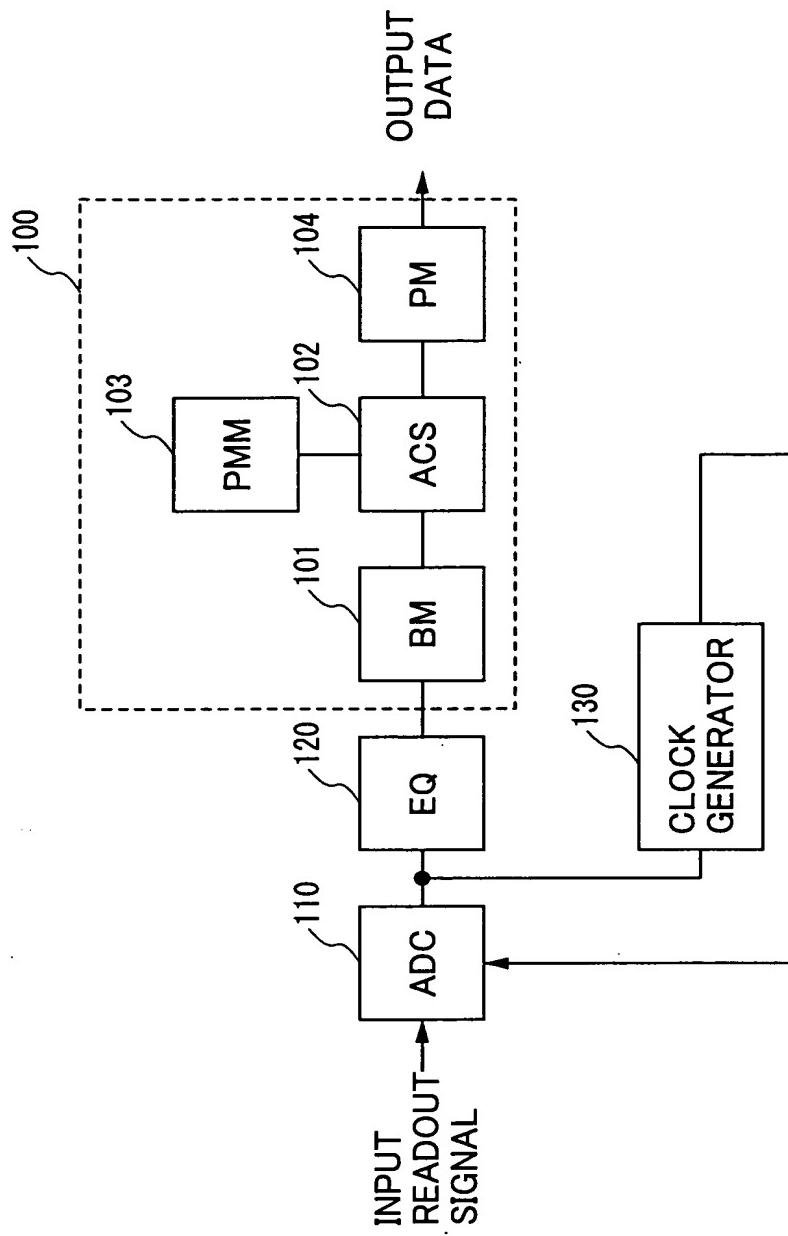
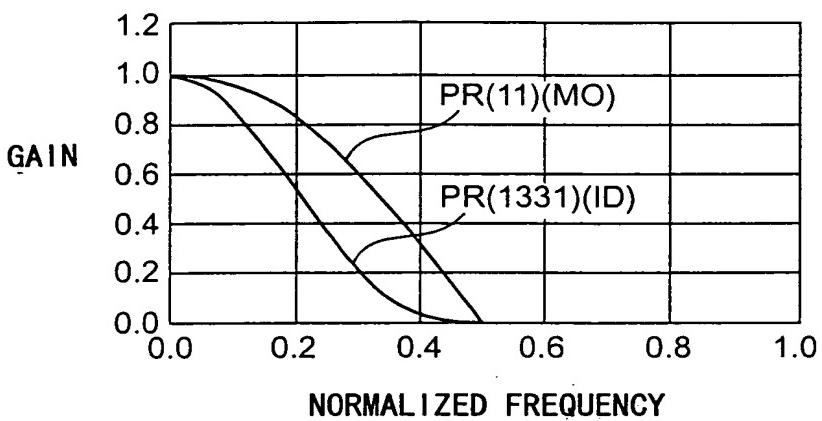
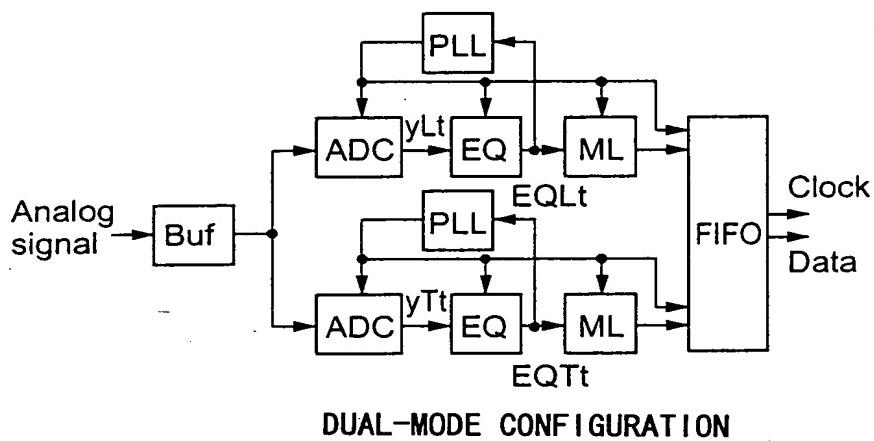


FIG. 3



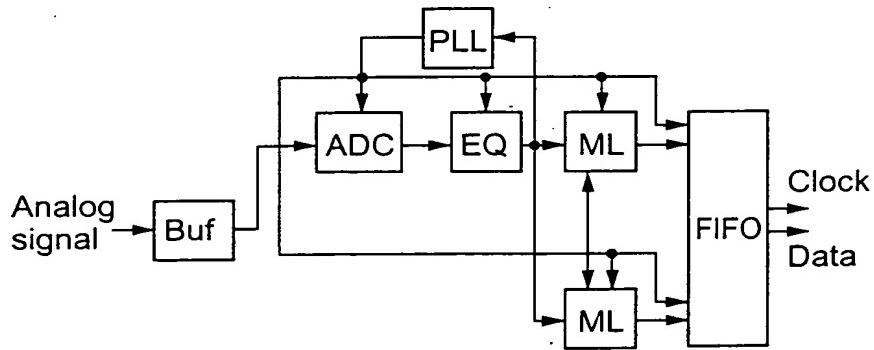
CONFIDENTIAL

FIG. 4A



DUAL-MODE CONFIGURATION

FIG. 4B



SINGLE-MODE CONFIGURATION

TOP SECRET//COMINT

FIG.5

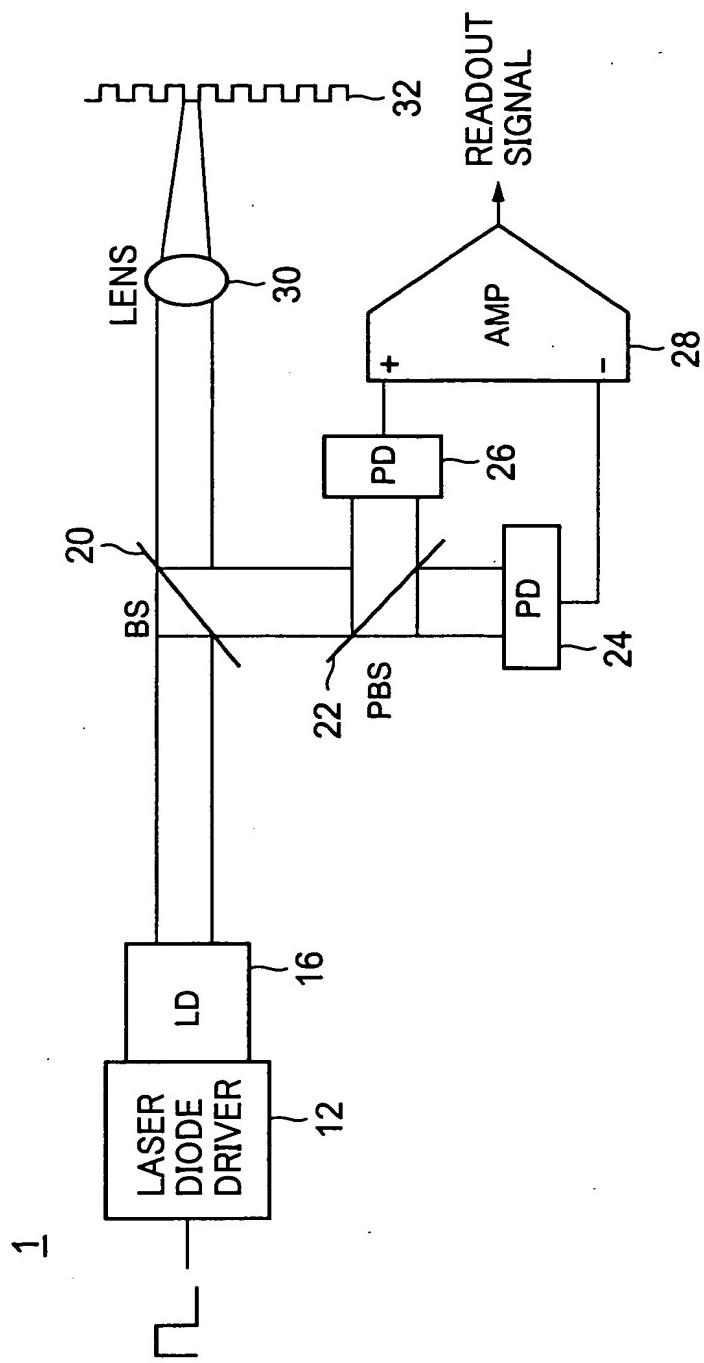


FIG.6

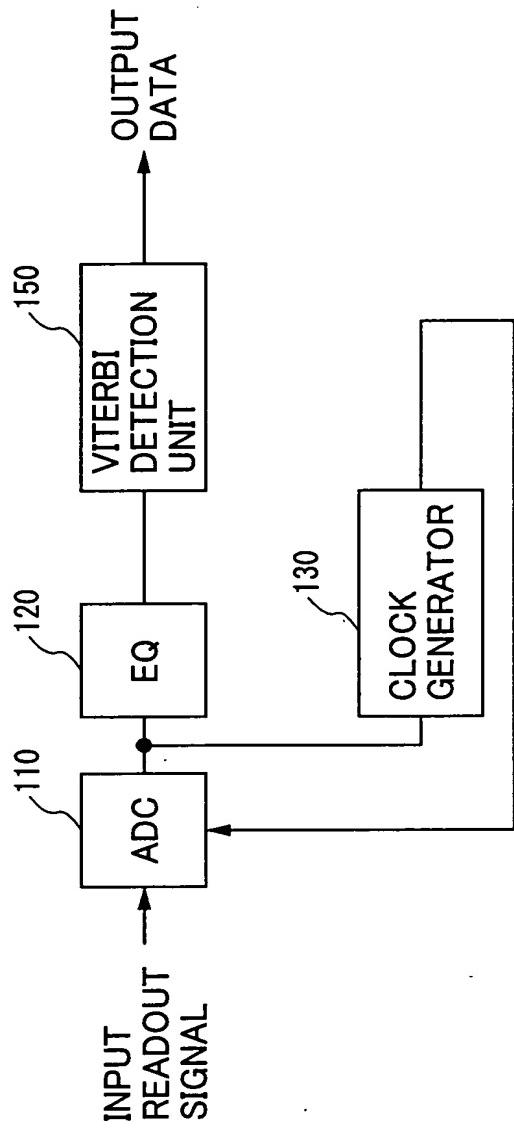


FIG. 7A

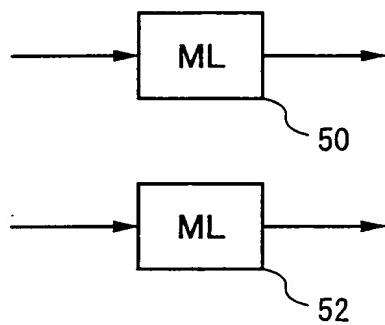


FIG. 7B

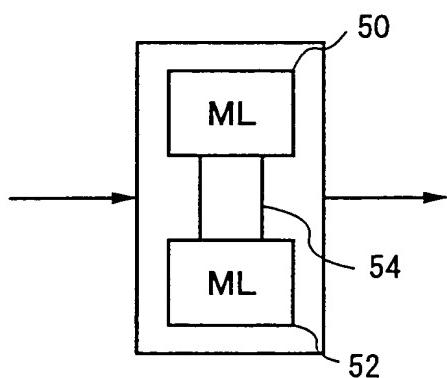
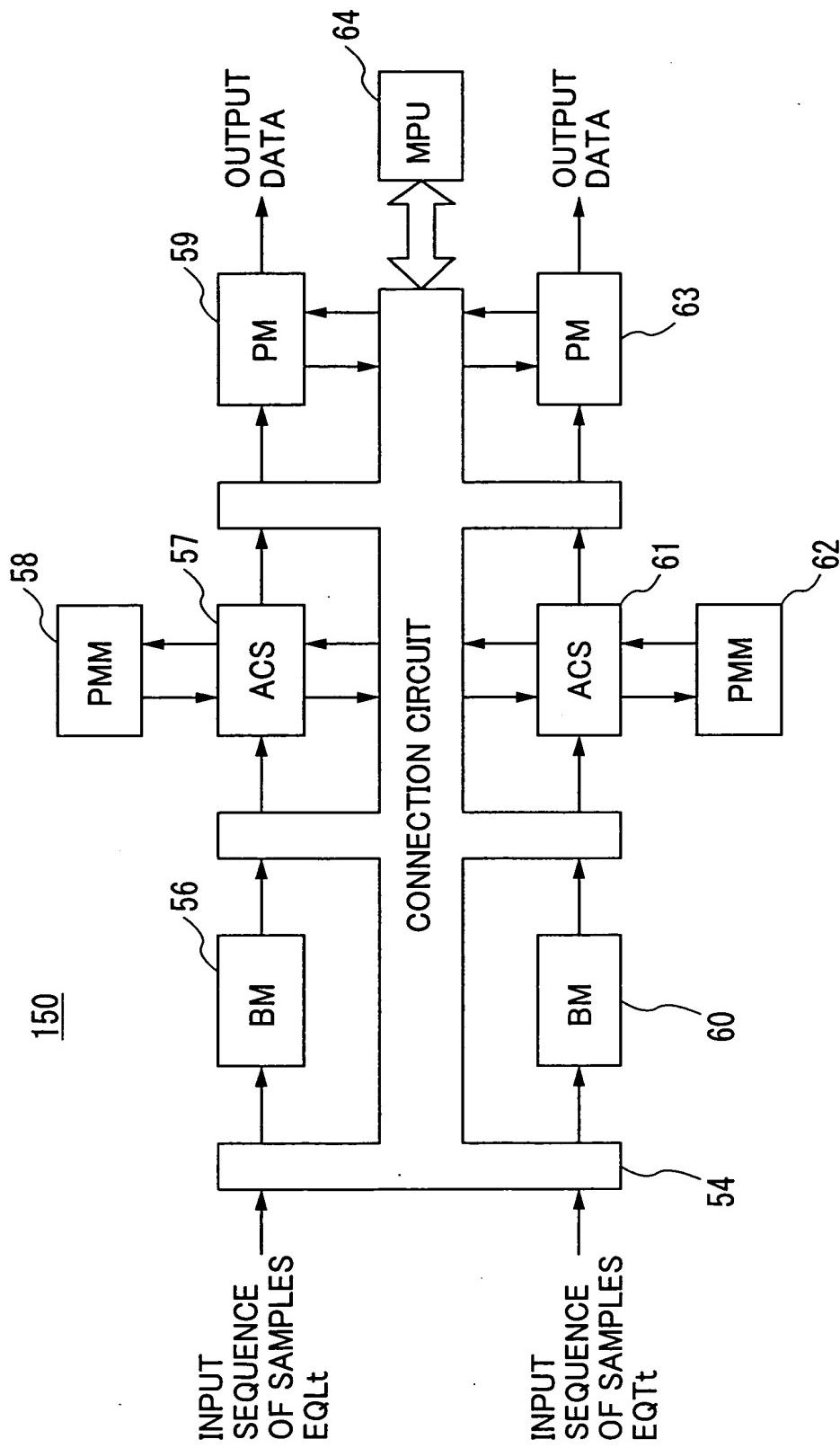


FIG.8



**FIG. 9A**

| IN CASE OF<br>PR(1, 1, 0, X) |     |     |     |           | IN CASE OF<br>PR(1, 3, 3, 1) |     |     |     |   |           |
|------------------------------|-----|-----|-----|-----------|------------------------------|-----|-----|-----|---|-----------|
| TIME                         | t-3 | t-2 | t-1 | t         | TIME                         | t-3 | t-2 | t-1 | t | Ph        |
| STATE SLO X                  | 0   | 0   | 0   | SLO PLO=0 | STATE SLO                    | 0   | 0   | 0   | 0 | SLO PLO=0 |
| SL1 X                        | 1   | 0   | 0   | SLO PL1=0 | ST1                          | 0   | 1   | 0   | 0 | STO PL1=0 |
| SE2 X                        | 0   | 1   | 0   | SET       | SE2                          | 0   | 0   | 1   | 0 | SL1       |
| SL3 X                        | 1   | 1   | 0   | SL1 PL3=1 | SL3                          | 0   | 1   | 1   | 0 | ST1 PL3=6 |
| SLO X                        | 0   | 0   | 1   | SL2 PL4=1 | SLO                          | 0   | 0   | 0   | 1 | SL2 PL4=1 |
| SL1 X                        | 1   | 0   | 1   | SE2       | SL1                          | 0   | 1   | 0   | 1 | ST2       |
| SL2 X                        | 0   | 1   | 1   | SL3 PL6=2 | SL2                          | 0   | 0   | 1   | 1 | SL3 PL6=4 |
| SL3 X                        | 1   | 1   | 1   | SL3 PL7=2 | SL3                          | 0   | 1   | 1   | 1 | ST3 PL7=7 |
| STO X                        | 0   | 0   | 0   | STO PTO=0 | STO                          | 1   | 0   | 0   | 0 | SLO PTO=1 |
| ST1 X                        | 1   | 0   | 0   | STO PT1=0 | ST1                          | 1   | 1   | 0   | 0 | STO PT1=4 |
| ST2 X                        | 0   | 1   | 0   | STF       | ST2                          | 1   | 0   | 1   | 0 | SL1       |
| ST3 X                        | 1   | 1   | 0   | ST1 PT3=1 | ST3                          | 1   | 1   | 1   | 0 | ST1 PT3=7 |
| STO X                        | 0   | 0   | 1   | ST2 PT4=1 | STO                          | 1   | 0   | 0   | 1 | SL2 PT4=1 |
| ST1 X                        | 1   | 0   | 1   | ST2       | ST1                          | 1   | 1   | 0   | 1 | ST2       |
| ST2 X                        | 0   | 1   | 1   | ST3 PT6=2 | ST2                          | 1   | 0   | 1   | 1 | SL3       |
| ST3 X                        | 1   | 1   | 1   | ST3 PT7=2 | ST3                          | 1   | 1   | 1   | 1 | ST3 PT7=8 |
| DUAL MODE                    |     |     |     |           | SINGLE MODE                  |     |     |     |   |           |

**FIG. 9B**

FIG. 10A

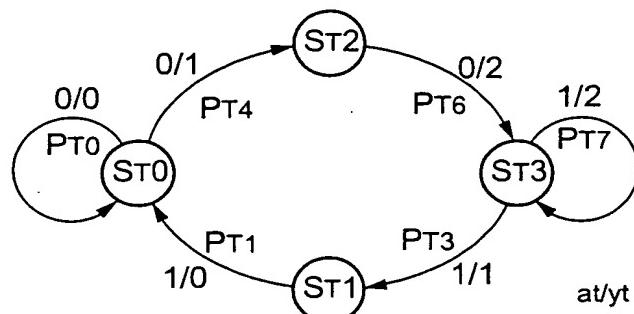
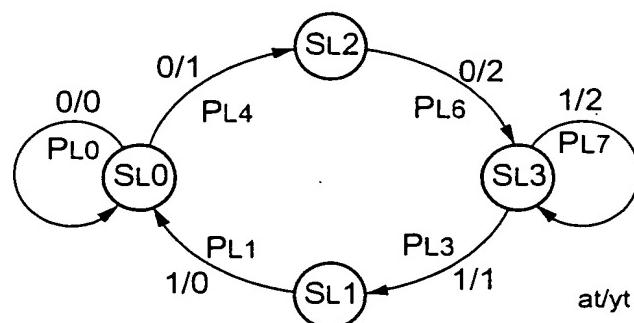


FIG. 10B

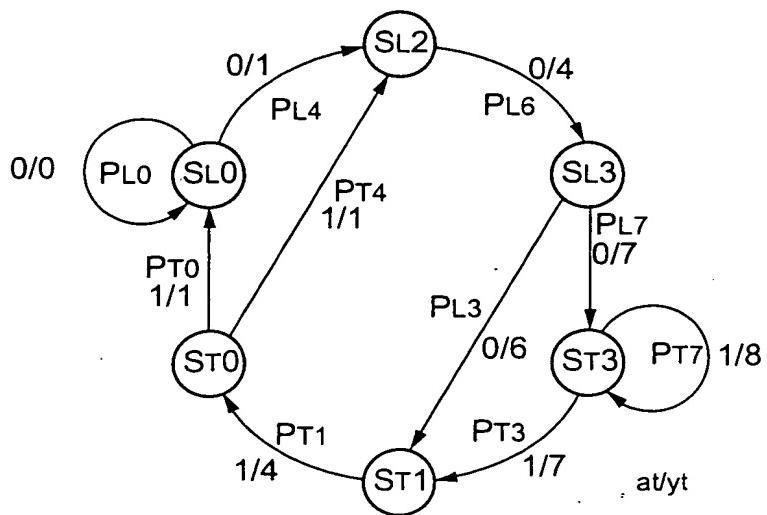


FIG. 11A

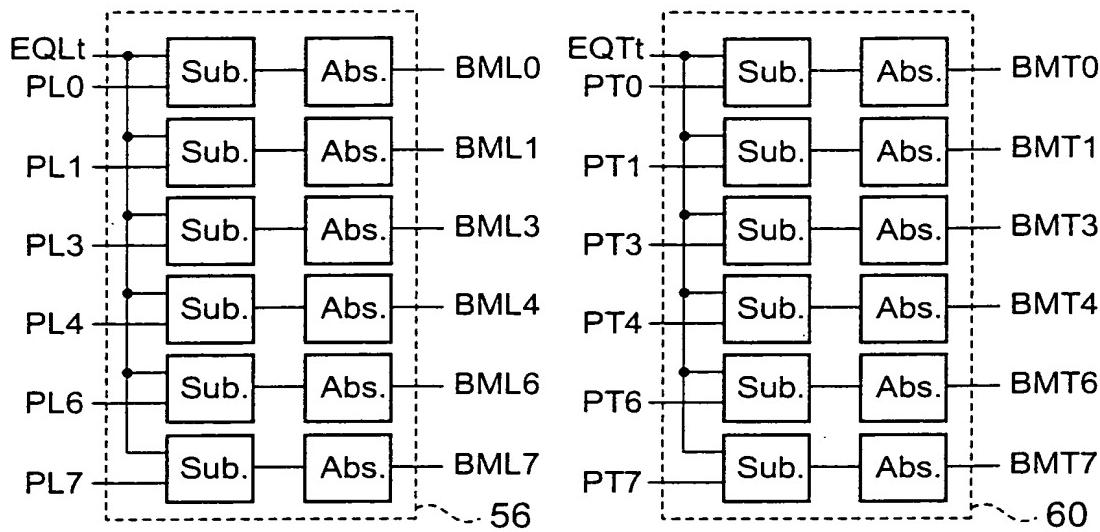


FIG. 11B

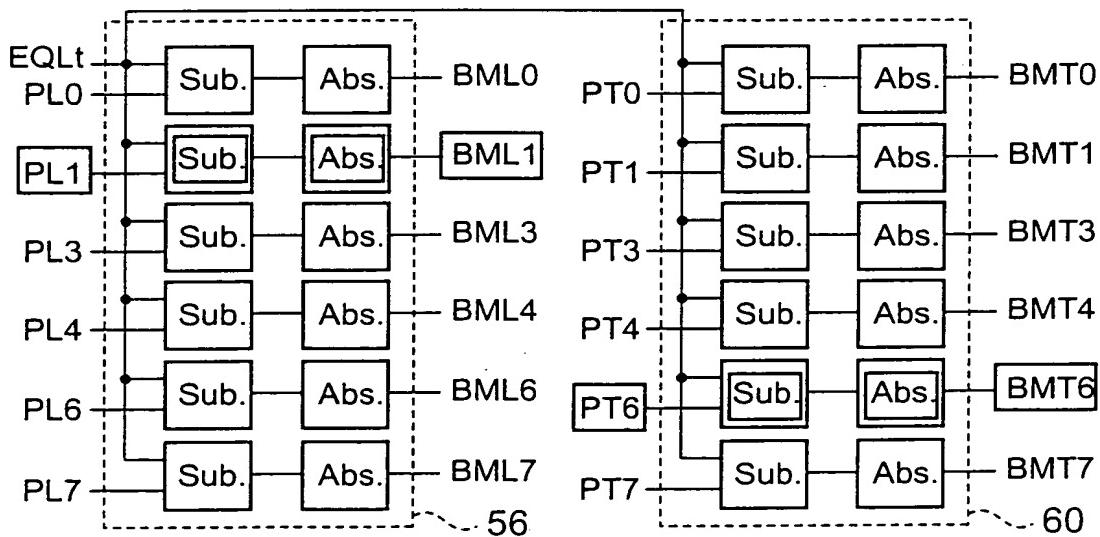
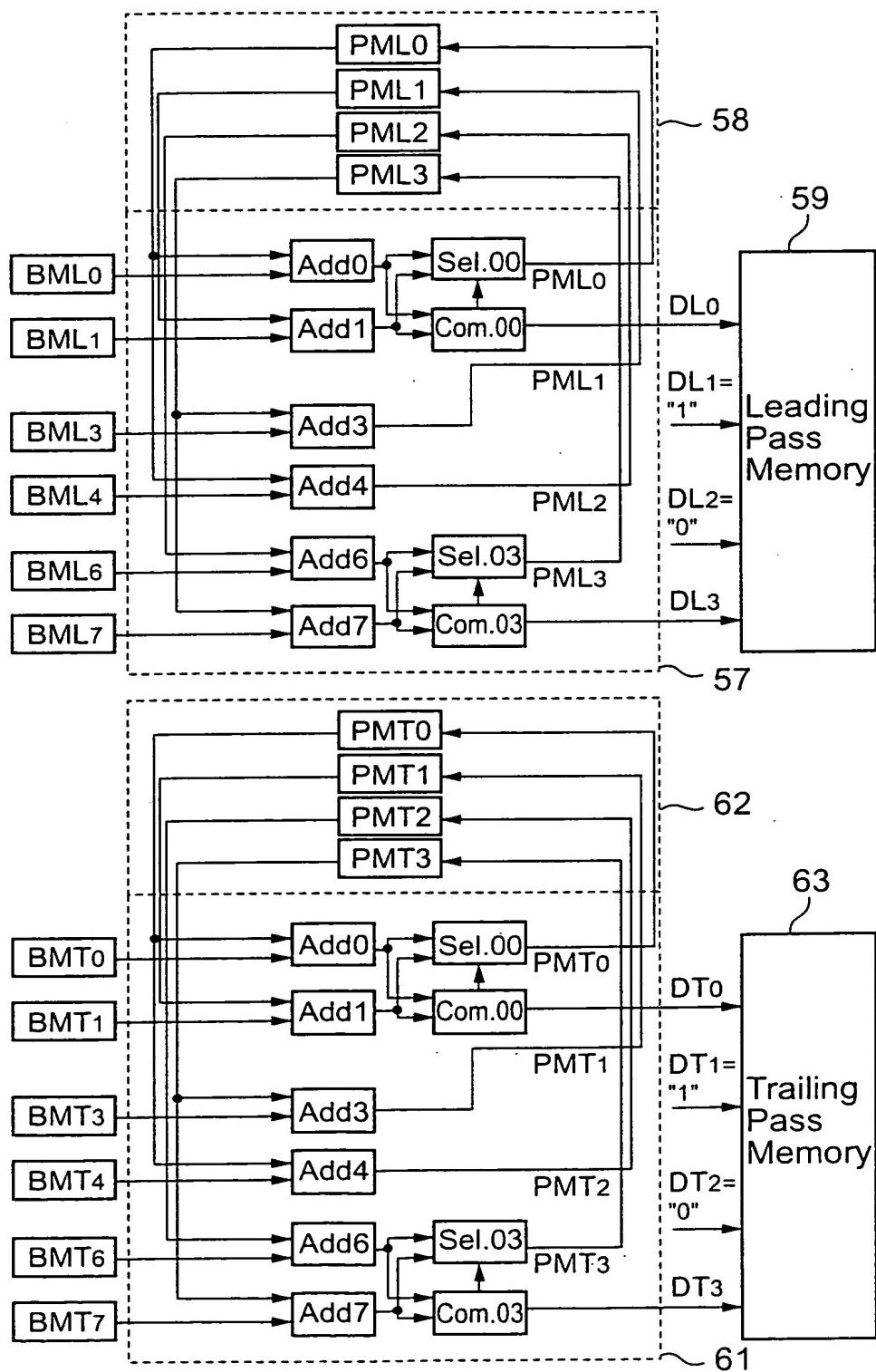


FIG. 12



00244009-CR12020

## FIG. 13A

PML(t, 0)=min [PML(t-1, 0) + BML0 , PML(t-1, 1) + BML1] ;DL0  
PML(t, 1)= PML(t-1, 3) + BML3 ;DL1  
PML(t, 2)= PML(t-1, 0) + BML4 ;DL2  
PML(t, 3)=min [PML(t-1, 2) + BML6 , PML(t-1, 3) + BML7] ;DL3  
  
PMT(t, 0)=min [PMT(t-1, 0) + BMT0 , PMT(t-1, 1) + BMT1] ;DT0  
PMT(t, 1)= PMT(t-1, 3) + BMT3 ;DT1  
PMT(t, 2)= PMT(t-1, 0) + BMT4 ;DT2  
PMT(t, 3)=min [PMT(t-1, 2) + BMT6 , PMT(t-1, 3) + BMT7] ;DT3

## FIG. 13B

PML(t, 0)=min [PML(t-1, 0) + BML0 , PMT(t-1, 0) + BMT0] ;DL0  
PML(t, 2)=min [PML(t-1, 0) + BML4 , PMT(t-1, 0) + BMT4] ;DT0  
PML(t, 3)= PML(t-1, 2) + BML6 ;DT2  
PMT(t, 0)= PMT(t-1, 1) + BMT1 ;DL1  
PMT(t, 1)=min [PML(t-1, 3) + BML3 , PMT(t-1, 3) + BMT3] ;DL3  
PMT(t, 3)=min [PML(t-1, 3) + BML7 , PMT(t-1, 3) + BMT7] ;DT3

FIG. 14

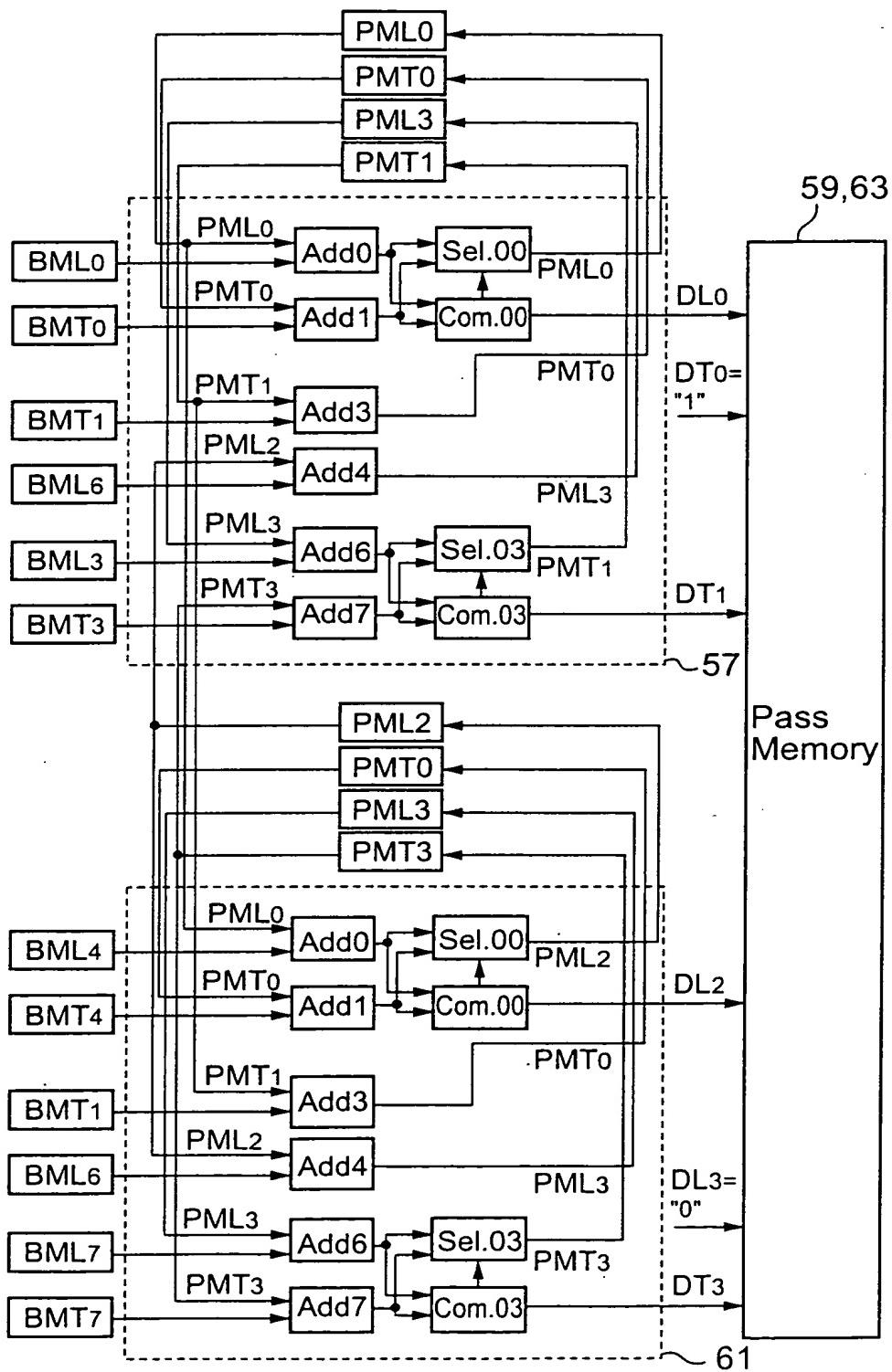


FIG. 15

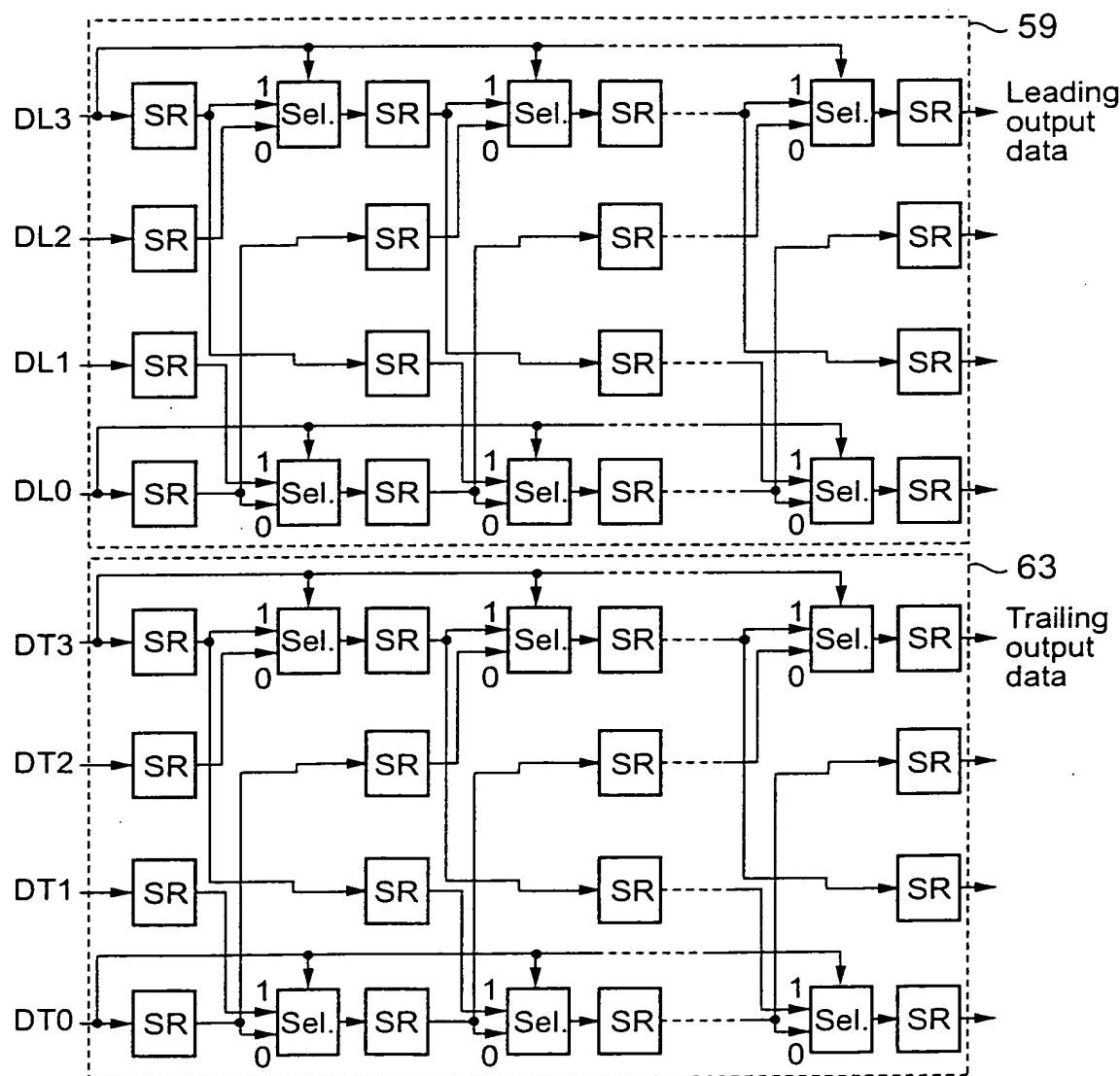


FIG. 16

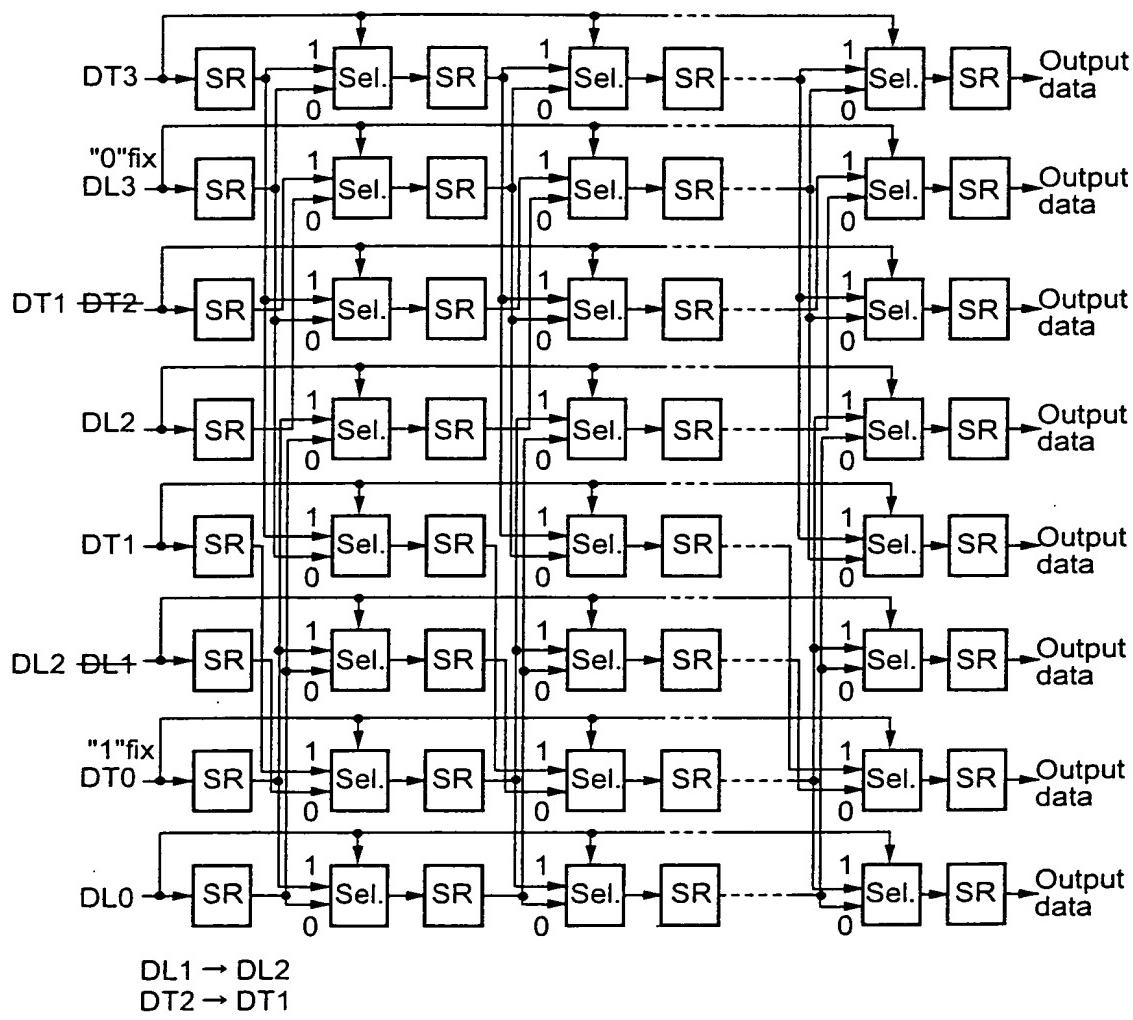
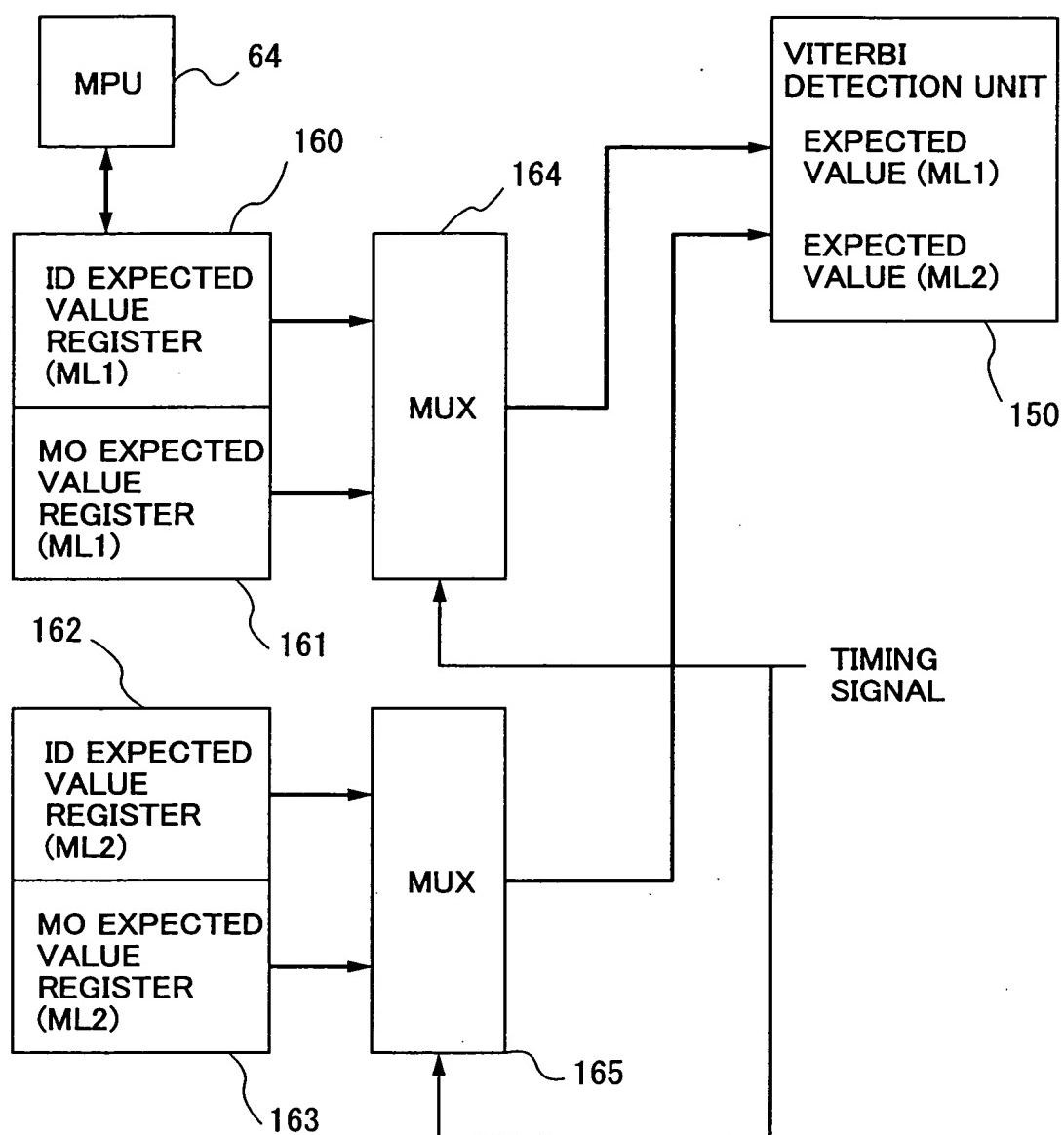


FIG.17



PRINTED IN U.S.A. 6/90

FIG. 18

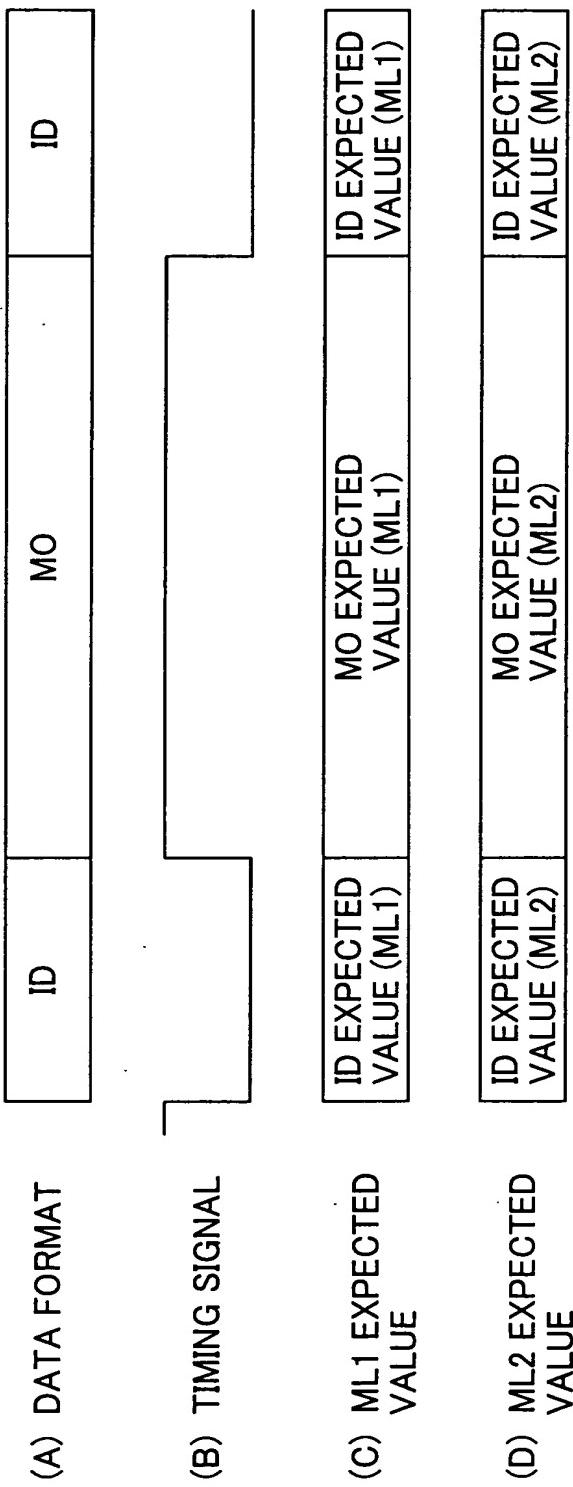


FIG. 19A

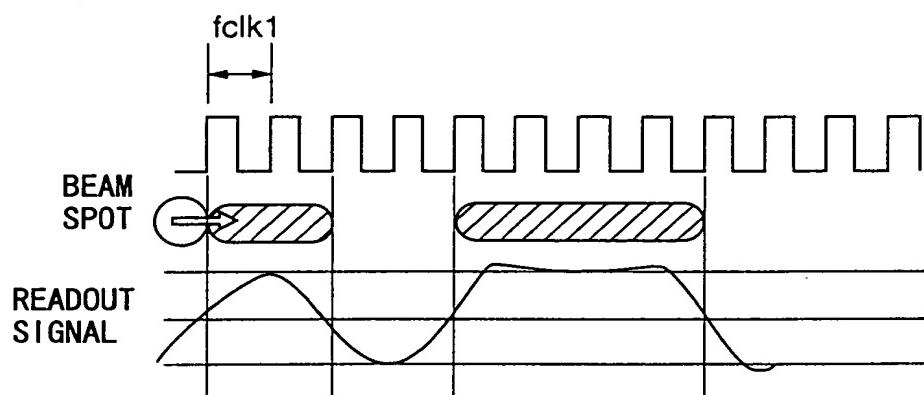


FIG. 19B

